DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027149
Date Inspected: 04-Feb-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Jobsite

CWI Name:	As noted below			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS OBG

Summary of Items Observed:

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

13E PP121.5 E4 Lifting Lug Hole #4 (Exterior)

This QA Inspector randomly observed ABF qualified welder Salvador Sandoval employ a propane burner to pre-heat lifting lug hole #4 at 13E PP121.5 E4 on the exterior of the OBG prior to performing Shielded Metal Arc Welding (SMAW). Mr. Sandoval achieved a temperature of 150° F and began welding in the 1G flat position utilizing 3.2mm E7018 electrodes drawing 128 amperes. QC Inspector Fred Von Hoff monitored the welding, parameters and measured the inter-pass temperatures while Mr. Sandoval ground and blended the start/stop edges of the work with a small disc grinder. This QA Inspector consulted ABF-WPS-D1.5-1050A-CU and noted that the work at this location was completed on this day and appeared to be in general compliance with the contract specifications. This joint is a Seismic Performance Critical Member (SPCM).

12E PP114 E4 Lifting Lug Hole #3 Repair (Interior)

This QA Inspector randomly observed ABF welder Rick Clayborn performing excavation operations of an ultrasonic rejectable indication on lifting lug hole #3 on the interior of the OBG located at 12E PP114 E4.The location of the excavation on the weld was y+400 at 120mm's in length, 20mm's wide and 7mm's deep. Upon completion of the excavations QC Inspector Fred Von Hoff performed a magnetic particle inspection of the site to

determine the soundness of the metal. This QA Inspector noted that Mr. Von Hoff found no rejectable indications.

This QA Inspector observed ABF welder Rick Clayborn performing repair welding operations on lifting lug hole #3 utilizing the SMAW process in the 4G overhead position. The welder employed 3.2mm E7018 electrodes with an amperage of 129. QC Inspector Fred Von Hoff monitored the welding and the parameters. This QA inspector noted that the work at this location appeared to be in general conformance with ABF-WPS-D1. 5-1001-Repair.

13E/14E-A3/A4 (Interior)

This QA Inspector randomly observed ABF welding operator Xiao Jian Wan (ID 9677) performing the Flux Core Arc Welding with gas (FCAW-G) process utilizing a “Bug-O” motorized rail system with a magnetic base attached in the (4G) overhead position on the underside of deck plate “A3/A4”, at 13E/14E of the OBG. This QA Inspector observed QC Inspector Fred Von Hoff monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3110-4. The parameters were recorded as (A=235/V=23.7/TS=190/HI=1. 75). This QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general conformance to the contract requirements. This joint is a Seismic Performance Critical Member (SPCM).

13E PP119.5 E4 Repair (Exterior)

This QA Inspector randomly observed ABF welder Rick Clayborn conducting excavation operations of ultrasonic rejectable indications on lifting lug holes #1-4 at 13E PP119.5 E4 on the exterior of the OBG. The welder was observed utilizing the carbon air arc technique to cut the excavations and once complete QC Inspector Fred Von Hoff measured the dimensions of the excavations as;

LLH #1-y+0 at 60mm’s in length, 20mm’s wide and 12mm’s deep.
LLH #2-y+0 at 70mm’s in length, 30mm’s wide and 11mm’s deep.
LLH #3-y+90 at 90mm’s in length, 20mm’s wide and 13mm’s deep.
LLH #4-y+70 at 80mm’s in length, 25mm’s wide and 15mm’s deep.
y+157 at 70mm’s in length, 20mm’s wide and 13mm’s deep.

This QA Inspector noted that no welding was performed at these locations on this date. These joints are Seismic Performance Critical Members (SPCM).

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. No issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

The were no pertinent conversations to report.

WELDING INSPECTION REPORT

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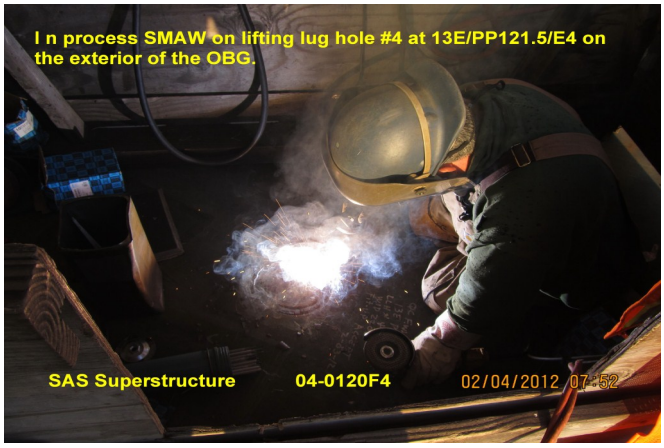

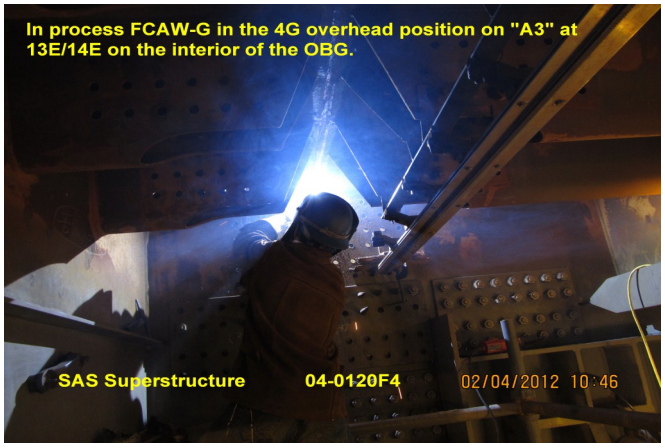

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer